

**RB36**  
**University System of Maryland Office**  
 University System of Maryland

***Capital Budget Summary***

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**State-owned Capital Improvement Program**  
 (\$ in Millions)

<i>Projects</i>	<i>Prior Auth.</i>	<i>2016 Request</i>	<i>2017 Est.</i>	<i>2018 Est.</i>	<i>2019 Est.</i>	<i>2020 Est.</i>	<i>Beyond CIP</i>
Biomedical Sciences and Engineering Education Facility	9.300	\$6.216	\$72.000	\$61.050	\$14.000	\$0.000	\$0.000
Southern Maryland Regional Higher Education Center	2.500	0.000	0.000	3.250	34.950	37.550	0.000
<b>Total</b>	<b>\$11.800</b>	<b>\$6.216</b>	<b>\$72.000</b>	<b>\$64.300</b>	<b>\$48.950</b>	<b>\$37.550</b>	<b>\$0.000</b>

<i>Fund Source</i>	<i>Prior Auth.</i>	<i>2016 Request</i>	<i>2017 Est.</i>	<i>2018 Est.</i>	<i>2019 Est.</i>	<i>2020 Est.</i>	<i>Beyond CIP</i>
GO Bonds	\$11.800	\$6.216	\$72.000	\$69.300	\$58.950	\$47.550	\$0.000
<b>Total</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>	<b>\$0.000</b>

CIP: *Capital Improvement Program*  
 GO: general obligation

**Grant and Loan Capital Improvement Program  
(\$ in Millions)**

<i>Projects</i>	<i>2014 Approp.</i>	<i>2015 Approp.</i>	<i>2016 Request</i>	<i>2017 Est.</i>	<i>2018 Est.</i>	<i>2019 Est.</i>	<i>2020 Est.</i>
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Capital Facilities Renewal	\$17.000	\$17.000	\$17.000	\$17.000	\$22.000	\$27.000	\$27.000
<b>Total</b>	<b>\$17.000</b>	<b>\$17.000</b>	<b>\$17.000</b>	<b>\$17.000</b>	<b>\$22.000</b>	<b>\$27.000</b>	<b>\$27.000</b>

<i>Fund Source</i>	<i>2014 Approp.</i>	<i>2015 Approp.</i>	<i>2016 Request</i>	<i>2017 Est.</i>	<i>2018 Est.</i>	<i>2019 Est.</i>	<i>2020 Est.</i>
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GO Bonds	\$0.000	\$0.000	\$0.000	\$0.000	\$5.000	\$10.000	\$10.000
Revenue Bonds	17.000	17.000	17.000	17.000	17.000	17.000	17.000
<b>Total</b>	<b>\$17.000</b>	<b>\$17.000</b>	<b>\$17.000</b>	<b>\$17.000</b>	<b>\$22.000</b>	<b>\$27.000</b>	<b>\$27.000</b>

***Summary of Recommended Bond Actions***

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	<u><b>Funds</b></u>
1. Shady Grove Educational Center – Biomedical Sciences and Engineering Education Building	\$2,716,000 GO
Restricts \$3.5 million for design until a report is submitted with the findings from a re-evaluation of the project and deletes \$2.7 million of construction funding since it is not needed in fiscal 2016.	
2. Section 12 – University System of Maryland Office – Shady Grove Educational Center	
Approve the pre-authorization of \$72.0 million for construction.	
3. Section 13 – University System of Maryland Office – Shady Grove Educational Center	
Approve pre-authorization of \$56.1 million to complete construction.	
<b>Total Reductions</b>	<b>\$2,716,000</b>

## ***Budget Overview***

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### **Biomedical Sciences and Engineering Education Facility**

The General Assembly included language in the 2012 capital budget pre-authorizing \$5.0 million in fiscal 2014 to begin design of the Biomedical Sciences and Engineering Education Facility that will be located at the Universities of Shady Grove (USG). The 2013 *Capital Improvement Program* (CIP) programmed \$6.0 million in fiscal 2015 to complete design of the facility; however, based on the expected cash flow requirement only \$4.3 million was needed in fiscal 2015. The 2015 capital budget provides \$6.2 million, an increase of \$0.2 million than programmed in the 2014 CIP, which was based on the expected cash flow requirement. Construction is estimated to cost \$130.8 million, which is split funded over fiscal 2017 and 2018. The total cost of the project is estimated to be \$162.6 million.

The 136,945 net assignable square feet (NASF)/224,500 gross square feet (GSF) facility will provide specialized laboratory space for new and existing programs and provide additional classroom space to support future enrollment growth. Existing programs such as nursing, bioscience, respiratory therapy, and pharmacy share existing laboratories, and there is only one dedicated laboratory for pharmacy. The University of Maryland College Park (UMCP) and University of Maryland Baltimore County will need specialized laboratory space if they are to offer programs in mechanical and electrical engineering and biotechnology. However, given the current budget situation in which State funding to University System of Maryland (USM) institutions was reduced in fiscal 2015 and only a modest increase is expected in fiscal 2016, institutions are re-considering either offering new or continuing existing programs at USG. This raises the question if there is a need for a specialized facility at USG and if built will it be fully utilized. **Therefore, the Department of Legislative Services (DLS), working with the Department of Budget and Management, recommends restricting \$3.5 million in design funds that would be used for the construction administration phase of the design effort until the University System of Maryland Office re-evaluates the project justification, including the size and scope, and reports its findings back to the budget committees. Since this will delay the start of construction that was scheduled to begin in March 2016, which is late in the fiscal year, DLS also recommends deleting \$2.7 million for construction since it will not be needed in fiscal 2016.** Since the project is still in the design phase, it is at a point where it can be delayed and re-evaluated before the State commits \$153.3 million to funding the project.

Currently, the existing laboratory space at USG is not appropriately sized, and there is an insufficient number of laboratories to accommodate the existing health-related programs. National and State standards for health-related disciplines *e.g.*, biological sciences and respiratory therapy, are 65 to 85 square feet (sq. ft.) per student. Currently, laboratories are below this standard and, therefore, do not have the space to accommodate a typical section of 20 to 30 students. One of the two biological science laboratories is 895 sq. ft. compared to the recommended size of 1,300 sq. ft., while the respiratory therapy program needs a laboratory that can accommodate 24 students compared to the existing space that only has room for 12 students. The pharmacy and nursing programs need additional space in order to meet enrollment demand. Nursing has only two laboratories that it shares with other health care programs, thereby limiting the number of courses that may be offered. In addition, the

current pharmacy laboratory space was not specifically designed for the program but was a library that was converted to provide laboratory space for the program.

There is also insufficient office space for faculty, which has grown from 298 to 456 between fiscal 2008 and 2012. Offices are crowded, congested, and lack privacy. Offices in the USG III building are 142 sq. ft., less than the State standard for office work stations, and there is not enough space for temporary storage reference materials and supplies. The total amount of office space can only adequately accommodate less than half of the existing faculty and staff. Currently, there is 34,328 NASF of office space, but it is projected USG will have a deficit of 58,273 NASF by 2019.

Overall, the new facility will provide 34,540 NASF of additional classroom space, 44,554 NASF of teaching laboratories, and 26,960 NASF of office space. Additionally, the facility will include 11,420 NASF of clinical space.

## **Capital Facilities Renewal**

This annual program provides for infrastructure improvements at various facilities at the USM institutions. Capital facilities renewal funds are allocated among institutions on a pro rata share of self-reported replacement costs for all State-funded academic facilities. Eligible projects must have a life expectancy of at least 15 years. Funding for fiscal 2016 includes \$17 million in revenue bonds that will enable USM to undertake 31 projects. The 2015 CIP programs \$5 million of general obligation (GO) bonds in fiscal 2018 and \$10 million in both fiscal 2019 and 2020 increasing the total funding for renewal projects to \$27 million.

Facilities renewal is defined as the planned renovation, adaptation, replacement, or upgrade of the systems of a capital asset during its lifespan such that it meets assigned functions in a reliable manner. A priority of USM is to maintain an adequate annual investment in the maintenance and renewal of its capital assets. When funding is insufficient to deal with a problem, such as replacing a leaking roof, repairs are made to meet the immediate concern and the replacement is “deferred,” becoming part of the backlog.

The consequences of not keeping up with facilities renewal projects as buildings age include more frequent and expensive maintenance work; electrical and mechanical systems become less effective, impacting academic and research activities; and the eventual failure of the facility leading to a closure or loss of space. As of fall 2013, the GSF of all USM facilities totaled 39.0 million, of which 21.9 million GSF are State-supported space with a replacement value of \$7.5 billion. UMCP has the most square footage of any institution, totaling 13.9 million, including 7.8 million of State-supported space. The University of Maryland, Baltimore has the second highest square footage totaling 6.5 million, which includes 4.0 million of State-supported space. USM estimates the current backlog of deferred maintenance is \$1.8 billion, with UMCP comprising 37.9%, or \$370.9 million, of the backlog, as shown in **Exhibit 1**.

**Exhibit 1**  
**Building-related Deferred Maintenance Backlog**

University of Maryland, College Park	\$670,947,171
University of Maryland Baltimore County	189,354,795
Towson University	182,275,000
University of Maryland, Baltimore	220,387,093
Salisbury University	119,133,315
Bowie State University	100,342,905
Coppin State University	85,183,000
University of Maryland Eastern Shore	60,266,520
University of Baltimore	55,886,136
Frostburg State University	45,207,750
University of Maryland Center for Environmental Science	43,023,420
<b>Total</b>	<b>\$1,772,007,105</b>

Note: Estimated backlog reflects maintenance/repairs and required replacements delayed to the future for budgetary reasons. Maintenance is preventative work and repair is to restore damaged or worn-out facilities or systems to normal operating condition. Capital renewal amount is for facilities and systems that are past their useful life and, therefore, in a “deferred” status. Does not include planned capital maintenance or corrections to address programmatic obsolescence and modernization.

Source: University System of Maryland

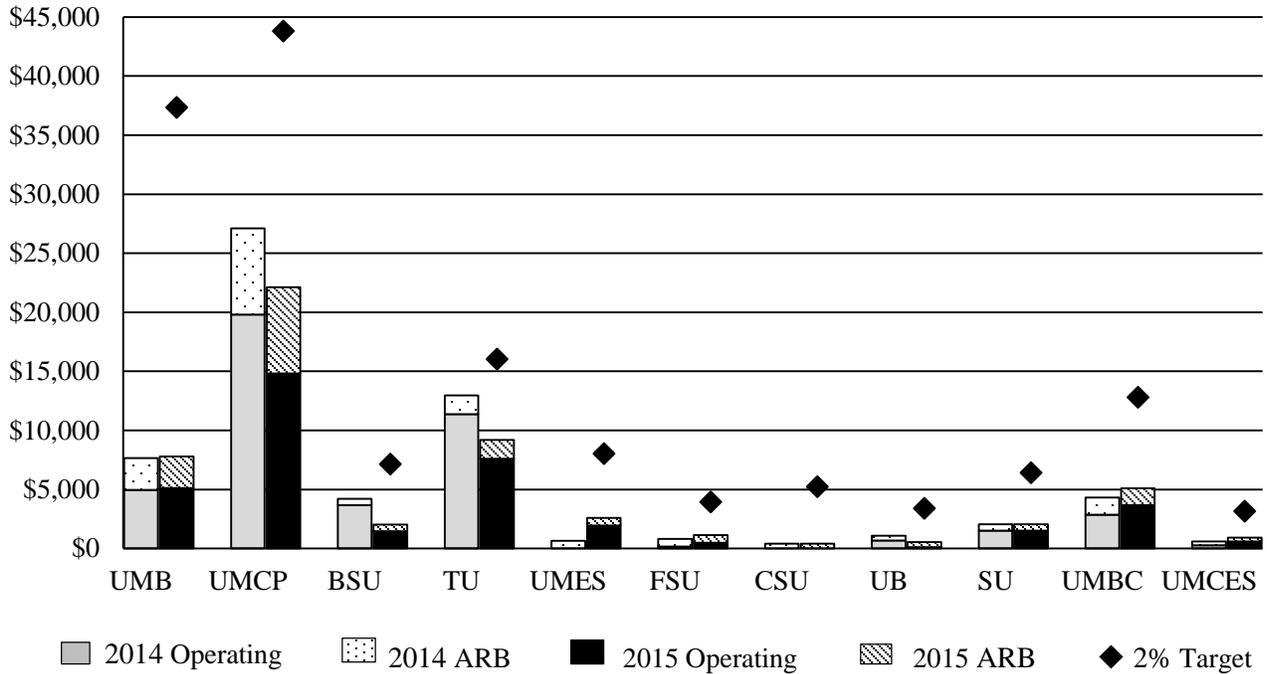
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USM’s programs and policies are intended to reduce the existing backlog of deferred maintenance and find a balance between wear and tear on facilities and adequate spending to maintain facilities. Funding is intended to be from the operating budget; but historically, operating funds have not been able to sustain adequate levels of facility renewal funding, causing an increase in the backlog. To address the ongoing backlog, the Board of Regents adopted two strategies:

- reducing the backlog to a manageable size through deliberate spending on major renovation and replacement in the CIP; and
- adopting an annual operating spending formula based on a target guideline of 2.0% of the replacement value of campus buildings in which institution’s annual operating expenditures increase by 0.2% unless there are “systemwide funding constraints.”

**Exhibit 2** shows the allocation of the fiscal 2014 and 2015 operating expenditures and Academic Revenue Bonds (ARB) for facilities renewal and the 2.0% target. It should be noted, for UMCP, an additional \$10.0 million – \$5.0 million of GO bonds and \$5.0 million of ARBs – is included

**Exhibit 2**  
**University System of Maryland**  
**Operating and Capital Facility Renewal Expenditures**  
**Fiscal 2014-2015**  
**(\$ in Thousands)**



ARB: Academic Revenue Bonds  
 BSU: Bowie State University  
 CSU: Coppin State University  
 FSU: Frostburg State University  
 SU: Salisbury University

TU: Towson University  
 UB: University of Baltimore  
 UMB: University of Maryland, Baltimore  
 UMCP: University of Maryland, College Park  
 UMES: University of Maryland Eastern Shore

Note: The University of Maryland, College Park includes \$5 million in general obligation bonds and \$5 million in ARBs to fund campuswide building system and infrastructure improvements; the University of Maryland University College does not have a spending target due to the unique nature of its facilities profile, which includes leased buildings and building that are off-campus or outside of the State.

Source: University System of Maryland

to address the backlog of deferred maintenance related to its failing infrastructure. In order for USM to meet the 2% target, institutions would need to spend a total of \$150.6 million on deferred maintenance. In fiscal 2015, expenditures (including operating and ARBs) total \$54.4 million, equivalent to 0.7% of the replacement value of State-supported assets, which is \$8.0 million less than was spent in fiscal 2014. UMCP and Towson University (TU) accounted for 64.3% of the facility

renewal expenditures in fiscal 2014, but in fiscal 2015, both decreased expenditures by 18.4% and 29.0%, respectively, reflecting reductions in their operating budgets. Despite this reduction, spending in fiscal 2015 is equivalent to 1.0% and 1.1% of the replacement value of State-supported space at UMCP and TU, respectively. Coppin State University (CSU) did not allocate any of its operating budget in fiscal 2014 and 2015 to facility renewal and relied on its share of the ARBs to fund projects. However, CSU transferred \$1.3 million to the fund balance in fiscal 2014 and plans on a \$0.7 million transfer in fiscal 2015. This raises questions of CSU’s ability not only to maintain its current facilities but also the new science and technology center. **The chancellor should comment how USM will maintain facility renewal as a priority for institutions and how CSU will manage maintain its current and new facilities.**

## ***Operating Budget Impact Statement***

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### **Executive’s Operating Budget Impact Statement (\$ in Millions)**

	<i>FY 2016</i>	<i>FY 2017</i>	<i>FY 2018</i>	<i>FY 2019</i>	<i>FY 2020</i>
<b>Biomedical Sciences and Engineering Education Facility</b>					
Estimated Operating Cost	0.000	0.000	0.454	2.512	3.145
Estimated Staffing	0	0	1	6	6
<b>Total Operating Impact</b>					
Estimated Operating Cost	0.000	0.000	0.454	2.512	3.145
Estimated Staffing	0	0	1	6	6

## Summary of Other Projects in the Capital Improvement Program

### Projects Deferred in Fiscal 2016

Funding for the Southern Maryland Higher Education Center (SMHEC) is deferred from fiscal 2016 to 2018 in order to remain within the State debt affordability ratios. A description of the project is shown in **Exhibit 3**. Language was included in the 2013 capital budget providing \$1.5 million for the design of a new facility on the SMHEC campus. Restricted language was placed on the appropriation until the Southern Higher Education Council submitted a report assessing the educational needs of Southern Maryland and for SMHEC, USM, and the Southern Maryland Navy Alliance to submit a formal agreement on the roles and responsibilities of each in the construction and operation of the facility. Recommendations included construction of a third building at SMHEC that should be owned and operated by USM. Additionally, the report called for laboratory and technology commercialization space where it was originally planned as a traditional academic facility. The inclusion of research and commercialization space resulted in an increase in the size and scope of the project, with the estimated cost increasing from \$13.5 million to \$78.3 million.

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#### **Exhibit 3 Projects Deferred Fiscal 2016 (\$ in Millions)**

<u>Project</u>	<u>Description</u>	<u>Reason for Deferral</u>
Southern Maryland Higher Education Center (SMHEC)	Construct a third academic building at SMHEC to address space deficiencies from increased enrollment and allow for the expansion of program offerings.	To remain within State debt affordability ratios.

Source: Department of Budget and Management, 2015 *Capital Improvement Program*

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### GO Bond Recommended Actions

1. Restricts \$3.5 million for design until a report is submitted with the findings from a re-evaluation of the project and deletes \$2.7 million of construction funding since it is not needed in fiscal 2016.

*RB36 – USM – University System of Maryland Office*

RB36A	Shady Grove Educational Center – Biomedical Sciences and Engineering Education Building .....	\$ 3,500,000
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Add the following language:

Shady Grove Educational Center – Biomedical Sciences and Engineering Education Building. Provide funds to continue design and begin construction of an academic facility at Shady Grove Educational Center, provided that notwithstanding Section 6 of this Act, work may continue on this project prior to the appropriation of all funds necessary to complete this project, provided that \$3,500,000 of the authorization made for the purpose to design the Shady Grove Educational Center may not be encumbered or expended until the University System of Maryland re-evaluates the project and reports its findings to the budget committees. The report shall be submitted 45 prior to the expenditure of funds and the budget committees shall have 45 days to review and comment.....

<u><b>Allowance</b></u>	<u><b>Change</b></u>	<u><b>Authorization</b></u>
6,216,000	-2,716,000	3,500,000

**Explanation:** This language restricts \$3.5 million of design funds for the Biomedical Sciences and Engineering Facility at the Universities of Shady Grove until the University System of Maryland Office (USMO) re-evaluates the project and reports its findings to the budget committees. Since this will delay the start of construction, which was scheduled to begin in March 2016, the \$2.7 million provide for construction is deleted since it will not be needed in fiscal 2016.

<b>Information Request</b>	<b>Author</b>	<b>Due Date</b>
Findings from the re-evaluation of the project	USMO	45 days prior to the expenditure of the funds.

2. Approve the pre-authorization of \$72.0 million in general obligation bond fund for fiscal 2017 to construct the Shady Grove Educational Center.
  
3. Approve the pre-authorization of \$56.1 million in general obligation bond fund for fiscal 2018 to complete construction of the Shady Grove Educational Center.

<b>Total General Obligation Bonds Reduction</b>	<b>\$2,716,000</b>
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